

ABSTRACT

The high tensile cold-rolled steel sheet consists essentially of 0.04 to 0.13% C, 0.3 to 1.2% Si, 1.0 to 3.5% Mn, 0.04% or less P, 0.01% or less S, 0.07% or less Al, by mass, and balance of Fe and inevitable impurities, has a microstructure containing 50% or larger area percentage of ferrite and 10% or larger area percentage of martensite, has 0.85 to 1.5 of ratio of intervals of the martensite in the rolling direction to those in the sheet thickness direction, and has 8 GPa or larger nano strength of the martensite. The high tensile cold-rolled steel sheet has a good strength-elongation balance, and shows excellent crashworthiness at about 10 s^{-1} of strain rate. Therefore, the high tensile cold-rolled steel sheet is suitable for reinforcing members for pillar and dashboard of automobile.